PROFIT IN FEEDING BEEF CALVES.

Generally speaking, any beef animal fed until it is in a well finished condition and marketed between the veal age and twenty-four months is classed as baby beef, says Orange Judd Farmer. Since they must be fed several months following weaning time before they are sufficiently finished to be placed upon the market it naturally follows that very few baby beef animals are sold under ten or eleven months, while the necessity for rapid gains and early finish makes it desirable that the animals be placed upon the market as much under two years of age as possible. It is likely that most baby beef is sold between the ages of ten and eighteen months.

During the past season a considerable number of these western calves were finished for baby beef in central Indiana. Among the more successful feeders is Ed Flannigan of Franklin county. Two years ago Mr. Flannigan purchased thirty head of high grade Hereford calves in Kansas City, shipped them to his Indiana farm and fed them out for baby beef. The results were so satisfactory that the following fall he purchased sixty head at the same market for himself and something like 600 head for neighboring farmers in Franklin county. The sixty head which Mr. Flannigan retained for his own feeding were unusually high grade Herefords. They were about four or five months old when they arrived upon Mr. Flannigan's farm late in October and averaged 400 pounds in weight. In order to make the change from milk to dry feed less abrupt he placed them upon blue grass pasture for a short period, gradually introducing clean new clover hay where they could get it and learn to eat it. Upon this hay after a short time he sprinkled small quantities of cracked corn so that the calves would eat some of it with the hay and thus gradually acquire a taste for corn. Later he fed them small amounts of corn in the shock, so that they learned to eat fodder. By the time the calves were

YOUNG HEREFORD STEER.

placed in the dry lot, some time in November, they had learned to eat all kinds of roughage as well as corn.

Practically all the feed they received was produced upon the farm, the only feed purchased being small amounts of cottonseed meal.

The amount of corn was gradually increased until the calves were given all the grain that they would clean up every day. At the period when they were eating most the sixty head received about seven bushels per day of shelled and cracked corn, or about six and one-half pounds per head. They were given all the roughage they would consume, and no especial record was kept of the amount consumed at different parts of the feeding period. Fresh water was available to the animals at all times, both day and night. A tank heater was used in winter to keep the temperature up.

The calves spent the winter for the most part in the open air. There was a large straw covered shed, entirely inclosed upon three sides, at one side of the corral, and the stock was free to enter this shed at any time. They seemed, however, to prefer the outside, even in the very coldest nights of winter, except on two or three occasions when a wet, heavy snow was falling.

Approximately two pounds per head per day represents the gain of the cattle throughout the feeding period. Mr. Flannigan sold these cattle in May, and the average weight at this time was about 750 pounds per head. In addition to the cash returns, which gave a very high rate of gain, both for the corn and forage consumed, a large amount of valuable manure was available for use upon the land.

The Mud Wallow For Hogs.

In his book on "Swine Breeding, Feeding and Management," William Dietrich, assistant professor of swine husbandry of the University of Illinois, says:

"The mud wallow is the natural means of destroying lice. It is a well known fact that many herds of swine are never affected with lice; also that hogs having free access to good mud wallows are not troubled in this way. Hog lice cannot live under a coating of mud, consequently when a hog has access to a mud wallow and covers himself entirely over with mud the lice will be destroyed, or at least driven off. One means of destroying lice, then, is supplying the pigs with a good mud wallow."

Amount of Salt Per Cow.

Cows require from one to eight ounces of salt per day. The more concentrates they receive the more salt they require. It should be where they can have access to it every day. According to an experiment made at the Wisconsin station, about two ounces per cow per day is the average amount required.

ECONOMY OF SILAGE AS A DAIRY FEED.

Those dairy farmers who doubt whether it pays to have silage are those who have never fed it, writes G. W. Patterson, dairy expert.

The silo will cheapen the cost of feeding. Too many farmers have the impression that the profits in the dairy business are controlled entirely by the cost or value of the butter and the amount sold. They fail to appreciate how important is the cost of production.

The other day a farmer told me that, inasmuch as we would probably have a scarcity of feed this fall and winter, he would have to economize with his feed, or, in other words, feed less. He failed to see that the more a cow eats and the more she digests the more milk she will give and the more profit she will make. Economy does not come from skimping on the feed. It takes a certain amount of feed to maintain the body. All above this can be utilized for the production of milk.

The silo enables us to furnish the cows with the greatest possible amount of digestible nutrients from the feed. Theory and practice both show that about 40 per cent of the feed nutrients of the corn plant are in the stalk and leaf. About twelve acres of average corn put up as a silage in a 16 by 30 silo will make about 120 tons of silage. Inasmuch as silage contains 12.9 per cent of digestible nutrients, 120 tons will contain about 30,960 pounds. Since the per cent digestible nutrient in corn is 78.8, it would require some 701 bushels to furnish enough nutrients to equal that contained in 120 tons of silage.

How many acres of the average corn as we find it are necessary to yield 701

WAITING FOR THEIR SILAGE.

bushels? The average yield according to the 1908 year book is about thirty-one bushels. In other words it would take some twenty-two acres of corn to furnish as much digestible nutrients as we can get from 120 tons of silage obtained from twelve acres. The fact that many farmers are finding that it is possible through the use of a silo to almost double the number of cows for a given acreage shows in this connection that theory agrees with practice.

Again, how many pounds of cottonseed meal are necessary to furnish 30,960 pounds of digestible nutrients? Cottonseed meal contains 66.3 per cent digestible nutrients. It would therefore require 23.34 tons, which, at $30 per ton, means $700. Il other words, twelve acres of corn in a silo are worth, as far as digestible nutrients are concerned, $700 worth of cottonseed meal, or the equivalent of $50 per acre. Furthermore, we find that the 120 tons of silage are equal in digestible nutrients to $800 worth of bran at $28 per ton. Again, 120 tons of silage are equal in digestible nutrients to 1,592 bushels of oats. If the average yield of oats is twenty-five bushels to an acre, which the 1908 year book shows, how many acres are necessary to produce as much digestible nutrients as we find in 120 tons of silage? The answer is sixty-three.

Alfalfa Silage.

As land values increase and farmers and dairymen come to more fully appreciate the worth of green feed in winter the silo grows in estimation. Eastern farmers who keep cows or young stock of any kind use the silo more or less to conserve for winter the value of both green grass and corn. Alfalfa makes an excellent silage, but its peculiar quality of retaining its green food value as hay, when properly cured, makes its ensilaging much less a necessity. Alfalfa hay taken from the mow in February, green, appetizing and nutritious, falls little, if any, short of serving the purposes of silage.—"The Book of Alfalfa."

A Model Dairy Barn.

A novel banquet was held at the time of the Illinois State Dairymen's association in the dairy barn of the Illinois College of Agriculture. Their stable is arranged so that two rows of cows face each other, with a space of about sixteen feet between stalls. Here a long, well decorated and laden table was spread for their guests. The floor, walls and ceilings were perfectly clean and the cows groomed to perfection. The absolute cleanliness and absence of any odor were he universal remark of all the guests. This goes to show what can be done with a little care and pains.

FEEDING THE COLT.

Good Pasture, With Oats and Bran, Keeps Him Thrifty.

The main thing in feeding the colt is to supply the oats. It is true that somewhat faster gains, with less oats required for each pound of growth, generally result from feeding crushed oats to foals, but the difference is not great enough to worry about.

If it is sheaf oats that are to be chopped, a breeder would advise against feeding much of that to the foal anyway. It needs nutritious feed. For roughage it is better to allow it a free run at pasture at this season. If this is impossible feed nutritious hay, such as clover or alfalfa or even timothy, and give the coarse sheaf oats to older horses.

If one must cut sheaf oats in some way he can rig up an effective though crude and slow working machine with a corn knife. Drill a hole in the tip end of the blade and bolt it pivot fashion so that the blade may be moved snugly across the edge of a platform or shallow trough made for the purpose.

The bottom of this should be of hard wood or else have a metal cutting plate. The knife edge should swing as close to this as possible without allowing the edge to catch and be dulled. This kind of chopper works like a photograph trimmer. The operator swings the knife down with one hand and pushes the roughage to be cut forward against it with the other, advancing it between each stroke sufficiently to cut off the desired length when the knife comes down.

Rather than keep feed before the colt all the time it is better to feed at regular intervals twice a day, or, still better, three times if that is convenient, just what the youngster will clean up promptly. This plan of feeding keeps the digestive system in more healthy condition and induces the colt to eat regularly.

If the colt is getting plenty of exercise it may be fed all it desires in this way of oats, or, better, oats with a little bran unless some digestive disturbance becomes evident. Of course the colt should have either a free choice of good pasture or else good clean hay.

THE FARM DOCTOR.

Stomach Worms In Lambs.

Feeding tobacco dust or ground tobacco stems is claimed by some breeders to be a preventive for stomach worms in lambs. This is mixed with salt and put where sheep have free access to it.

Ringworm In Calves.

Calves are often troubled by ringworm. It is caused by a vegetable parasite. The best treatment is sulphur ointment, made of powdered sulphur, lard, oil or grease. Wash the part affected with soapsuds and then apply the sulphur ointment.

Founder of Horse.

Blister the coronets of both forefeet with cerate of cantharides after clipping off the hair, and if necessary repeat the blistering in ten days. Twice daily give him a teaspoonful of saltpeter in his drinking water. Stop for a day or two if the kidneys should become too active. Feed lightly. Keep him in a shady, cool place.

Stoppage of the Teat.

The proper manner in which to handle and treat stoppage of the teat is thoroughly to wash it in an antiseptic solution, then dip a teat plug into a healing ointment and insert it into the point of the teat, allowing same to remain from one milking to another. In this manner closure of the point of the teat can be overcome in a very simple and satisfactory way.

Treatment For Bloody Milk.

Bathe the udder with cold water three times a day and twice daily sponge with a lotion composed of two drams each of dilute sulphuric acid (10 per cent) and powdered alum to a pint of cold water. Give a dram of dried sulphate of iron in feed night and morning if she is not in calf. See that the udder is not being bruised upon a hard floor. Milk gently.

Remedy For Scouring In Horses.

To cure scours in horses unload the bowels with a pint of raw linseed oil, adding a few drops of laudanum if the intestines seem very tender, and follow with linseed or slippery elm gruels. In cases of long standing oak bark tea with tonics, gentian, cinchona or nux and warming mixtures containing ginger or pepper may have to be employed. But never use astringents or opiates until the irritant has been dislodged.

Sheep Scab.

Wool pulling is common in flocks when scab is present and may best be cured by dipping to destroy the parasite, which burrows in the skin. It causes such irritation and itching that the sheep are nearly frantic and pull or rub off the wool. Any of the commercial arsenical dips or the coal tar preparations will do the work. If the skin has a yellow tint and resembles wax give each sheep a large tablespoonful of glauber's salts twice daily.

Pinworms In Horses.

Pinworms usually infest the rectum only, and medicines given through the mouth have very little effect upon them. They are best removed by injecting astringent solutions into the rectum after it has been emptied. These are advised: Alum one ounce to a quart of warm water. The water obtained by boiling oak leaves often works well. Some advise the use of raw linseed oil one quart and turpentine two ounces. Either of the above ought to give good results.

ONE VIEW OF FARMING.

Read Here About Conditions Found Thirty Miles From Chicago.

"I am willing to believe anything about the prosperity of western farmers after a recent adventure of mine near Chicago," said a man just returned from his vacation. "My wife and I were visiting friends in Chicago when I received a letter from an old schoolmate asking us to 'run out to the farm' and pay them a little visit. The farm, he wrote, was some thirty miles out of Chicago, and we were to come informally.

"We started out to the farm. The train would land us there at 2 o'clock in the afternoon, and, remembering my boyhood up in New Hampshire, I knew that at that hour they would just be washing up the dinner dishes. So we took particular pains to have an early luncheon before we started. Our first surprise was at the station, a small, one horse affair. Up to the station at a spanking trot came my old friend X., driving two well bred horses in a smart carriage.

"But this was as nothing to what awaited us. At the end of a three mile drive X. turned in at what you'd call a lodge gate in England, with the house back nearly a quarter of a mile from the road. It didn't look so very large or very fine, but the first thing I sighted on the piazza was X.'s three small children playing, attended by three nursemaids in white aprons and caps. Mrs. X. came out to greet us arrayed in a dress that my wife says couldn't be bought for less than $100.

"It grew worse and worse or better and better, according to your point of view. X.'s 'man' escorted our small satchel upstairs, and Mrs. X.'s maid appeared with a large dressing bag for my wife and a kimono that fairly made her eyes water. A third menial of some fancy variety announced to us that dinner was ready. It seems that they had it regularly at 3 o'clock.

"Dinner was served by the butler. It began with oysters on the half shell. Besides the usual fixings of a six course dinner, they had crabs, frogs' legs, alligator pears and champagne. I hardly dared look at my wife, remembering the luncheon we had so carefully taken at the Chicago station to avoid making extra work for the farmer's wife. When the champagne came on that nearly finished us.

"Back to the farm? Well, I guess, but not in the rocks of New Hampshire. When I take to farming it will be raising garden truck for Chicago or St. Louis."—New York Times.

It's Nature.

"I noticed in the store we visited today everybody was crowded around the perfumery counter."

"That's not surprising."

"Why not?"

"Oughtn't perfume naturally to be a scenter of attraction?"—Baltimore American.

The most completely lost of all days is the one on which we have not laughed.—Chamfort.

EXTERMINATING TICKS.

Cattle Pest May Be Eradicated by Change of Pasture.

The month of August lends itself well to the eradication of cattle fever ticks where a pasture rotation plan is used. By vacating a pasture during this month and keeping it vacant until July 1 of next year it may be freed of ticks, and if no tick infested animals are allowed to enter after July 1 the pasture will remain free. The United States department of agriculture advises farmers in the tick region to take advantage of this favorable time so far as practicable.

Pastures from which live stock is removed for a sufficient time become free of ticks by a process of starvation, as the ticks cannot live to maturity if they are unable to get upon animals. The time required for all ticks to die after the stock has been removed from infested fields and pastures varies considerably, depending on climate, season and weather conditions. Experience has shown, however, that the period from Sept. 1 to July 1 is sufficient, and this appears to be the most convenient time.

The advantage of vacating a pasture for the period named is twofold. Not only is the pasture freed from ticks, but its disuse during that time will probably cause less inconvenience and expense than at any other season, and it will be benefited by the rest and will have a better growth of grass the following summer. In some sections where pastures are utilized throughout the winter to vacate would probably necessitate feeding the stock unless the farmer is situated so that he can keep his stock on one pasture while another pasture is kept vacant. But it is also true that beginning with September there will be a more abundant supply of rough feed about a farm which can be utilized. August is a most favorable month for making a start toward freeing premises of ticks by the method suggested.

The animals should, of course, be free of ticks when they are again turned on the pasture in July. Where the owner has a small number of cattle greasing or spraying them with Beaumont crude petroleum is a good way to rid them of ticks. When the number of cattle is large or when a dipping vat is convenient it may be more practicable to dip them.—Bulletin United States Agricultural Department.

DRONES OF THE FARM.

Stallions and Bulls Should Earn Their Keep by Useful Labor.

A perplexing question which always confronts the farmer and breeder is, How shall the bulls and stallions be handled to prevent them from becoming a nuisance? It is a well known fact that a full grown bull is a white elephant upon the farm regardless of either breeding or value; that his care and control are the bane of the farmer's life; that he is usually inclosed in a strong pen or hitched with a chain to a post where he gets but little exercise, with the result that the poor brute becomes nervous, vicious and dangerous. He suffers in loss of vitality, deteriorates in prepotency, becomes self burdened with useless fat and is a drone in every sense of the word. What is true of the bulls is equally true regarding stallions, except that there are fewer of them.

"At the farm conducted under my supervision," writes John McLennan in Rural New Yorker, "operated in connection with the New York State School of Agriculture at Alfred, N. Y., are kept four bulls and two stallions. The bulls are pure breds, representing the principal dairy types, and the stallions are an imported Percheron and a registered trotter. In temperament they are probably not materially different from other bulls and stallions of like breeds, yet under our treatment

YOKE OF DAIRY BULLS.

they are all absolutely gentle, reliable and very serviceable. They work every working day and work hard. The big Percheron is one of the best work horses on the farm.

"It may be suggested that full grown bulls and stallions which were never trained to work would be a dangerous and difficult proposition to undertake. I would suggest in answer to that that the Jersey bull shown in the illustration was purchased this season as a wild, vicious and unsafe animal and that he and his Guernsey mate were entirely trained by a seventeen year old lad who drives them. I may say that all of these animals will be shown at the coming state fair at Syracuse, the stallion in his class among the draft horses and the bulls in their proper classes among the several dairy breeds, but of much more importance (as it seems to me) they will be shown every day, hitched singly and in combination, to give a practical illustration of how the state secures much valuable labor on the state farm at Alfred from drones."

MANAGING THE SHEEP FLOCK.

The proper management of sheep necessitates thorough preparation. First, barns should be on high ground, kept dry and well bedded, with shed 12 by 30 or 40 feet, allowing about ten square feet to the ewe, using portable rack through the center, writes C. C. Hardman in the West Virginia Bulletin. The shed should have windows on the east side, with large sliding door at each end to avoid crowding of the pregnant ewes and to allow a draft through the shed during the day to dry out the shed before bedding. Always give the sheep access to plenty of good fresh air, but never allow a draft over them.

Water is very essential winter and summer to the health and vigor of the flock.

Salt should be supplied at all times except the breeding period. They want salt every day, but are injured by eating too much at a time.

The pasture should be divided into not less than four fields for summer, partly affording them that liberty that nature demands to roam and to have clean fresh pasture and beds, but the most important consideration is to avoid the internal parasitic diseases—stomach worms, tapeworms, liver fluke and nodular disease—which do more to retard the sheep industry than all other hindering causes combined and are all propagated very much in the same way. The parasite lays its eggs in the intestines of

FINE SPECIMEN OF SUFFOLK RAM.

the sheep, which are expelled to the ground, where they hatch and go through a larval state and are either eaten or drunk by the sheep. Where the shifting to different fields is practiced the larva dies before finding a host, and the sheep becomes more profitable, not wearing dusty paths through pastures trying to escape infection that instinct teaches is there or gnawing the sod in patches. With this system the farmer can convert the entire feeding product of the farm into cash with sheep alone.

Tobacco should be kept before them all the time. Dip a handful of tobacco in salty brine and feed to every ten ewes until the habit of using it is formed. Also pumpkins during fall and winter make a good feed and act as a vermifuge.

The feed should be composed of alfalfa, clover and cowpea hay, with access to rape, blue grass and roots as succulents. These feeds re-enforced by a light feed of mixed grains, such as corn, bran, oilmeal, etc., fed during the winter, insure an ample supply of milk at lambing time, and when the dams have a liberal supply of milk there is seldom any trouble with them disowning their lambs. Without proper feed and care success in the sheep business need not be hoped for.

Profit of the Silo.

When we grow the corn crop for feed we should use it to the best possible advantage. The first requisite is well bred stock that can turn the feed into profit. If you have poor, unprofitable stock the silo will not make them any better. When you have good dairy cows, well bred beef animals, sheep or swine, you will increase your profits by introducing the silo for several reasons. The ripening process of the corn renders a large part of the plant hard, indigestible and unpalatable. The cob becomes indigestible. If cut into the silo on maturity before ripening we gain in digestibility and palatability. We save a big lot of feed that is usually wasted. The cattle never eat the hard woody part of the cornstalk unless it is specially treated. In average dry season the leaves of the stover are largely lost in husking and handling. We want the silo to save the corn crop in the best possible feeding condition, save the largest per cent of the feed and build up our soil fertility.

Spongy Feet of Horse.

Have feet well pared out and for the fore feet use bar shoes. Pack the soles with tar and oakum and put leathers under shoes, writes Dr. Edward Moore in Country Gentleman. Then apply blister around the pasterns from top of hoofs to bottom of fetlocks. Wash off four days later. After this paint the hoofs daily with crude petroleum. Use the tar, etc., whenever horse is shod. Blister again in four to six weeks. Always have feet pared out when shoes are removed, and soon you will have a better quality of horn to nail to and well shaped feet.

Lice on Hogs.

To dip pigs at weaning time is not soon enough. Last fall we discovered newly hatched lice on our pigs at three weeks old, writes a hog grower in the Farm Journal. It was necessary to dip these pigs three times before weaning in order to exterminate the lice. The only sure way to find the lice is to catch the pigs and look close. The young ones show up first in clusters behind the ears.